

WHAT IS CLAIMED IS:

1. A closed chain quadriceps exercise apparatus, comprising:

a back rest having a back engaging surface;

5 a foot platform having a foot engaging surface, wherein
an angle is defined between a line extending normal to the foot
engaging surface and a line extending normal to the back engaging
surface;

10 an interconnecting means for interconnecting the back
rest and the foot platform in a manner that supports a person in a
rest position with his back against the back engaging surface on
the back rest, his thighs extending perpendicular to his torso, his
knees bent, and his feet on the foot engaging surface on the foot
platform, and in a manner that increases the angle to maintain an
orthogonal angle between the person's thighs and torso as the
15 person straightens his legs at the knees while pressing his feet
against the foot platform; and

a resisting means for resisting an increase in the angle
and thereby providing resistance to straightening of the person's
legs at the knees.

20 2. The exercise apparatus of claim 1, further comprising an
adjusting means for selectively adjusting the foot platform fore
and aft relative to the back rest.

25 3. The exercise apparatus of claim 1, further comprising an
adjusting means for selectively adjusting an angle defined between
the foot platform and the back rest.

4. The exercise apparatus of claim 1, wherein the back rest extends generally perpendicular to the foot platform in the rest position.

5 5. The exercise apparatus of claim 1, wherein the interconnecting means interconnects the foot platform and the back rest in such a manner that the back rest pivots one degree relative to the frame for every increase of two degrees in an angle defined by the person's knees.

10 6. A closed chain quadriceps exercise apparatus, comprising:
a frame designed to rest upon a floor surface;

a back rest having a back engaging surface;
a foot platform having a foot engaging surface, wherein
the foot platform and the back rest are mounted on the frame to
support a person in a rest position with his back against the back
engaging surface on the back rest, his knees bent, and his feet on
15 the foot engaging surface on the foot platform;

20 a moving means for moving at least the back rest relative
to the frame in a manner that maintains a constant angle between
the person's thighs and torso as the person straightens his legs at
the knees while pressing his feet against the foot platform; and
a resisting means for resisting straightening of the
person's legs at the knees.

7. The exercise apparatus of claim 6, wherein the resisting
means includes a weight stack connected to the back rest.

25 8. The exercise apparatus of claim 6, wherein the resisting
means includes a weight stack connected to the foot platform.

9. The exercise apparatus of claim 6, wherein the resisting means includes a weight plate selectively mounted on the back rest.

10. The exercise apparatus of claim 6, wherein the moving means moves the foot platform relative to the frame in a manner
5 that maintains a constant angle between the person's lower legs and feet as the person straightens his legs at the knees while pressing his feet against the foot platform.